

REMARKS

Applicant thanks the Examiner for the very thorough consideration given the present application.

Claims 1-10 are now present in this application. Claims 1, 4 and 8 are independent. Claims 1 and 4-9 have been amended.

Reconsideration of this application, as amended, is respectfully requested.

Rejection Under 35 U.S.C. § 112, 1st Paragraph

Claims 1-10 stand rejected under 35 U.S.C. § 112, 1st Paragraph. This rejection is respectfully traversed.

The Examiner states that the Applicant had previously claimed a method of changing a recording mode between CAV and CLV. The Examiner states that amended independent claims all recite "a method of changing a rotating mode" for recording. The Examiner asserts that no support for such is readily apparent from the disclosure as originally filed.

The Applicant refers to the original specification, page 2, lines 7-9. Herein, a definition of changing a CAV mode to CLV is defined (see Fig. 1). Clearly, Fig. 1 shows recording first in a CAV mode, and then at a certain point recording in CLV mode. Therefore, wherever the Applicant claims state that a mode is changed from CAV to CLV, recording in a CLV mode is understood to be also included in the definition as set forth in the Applicant's original specification.

With regard to changing a rotating mode for recording, the Applicant refers the Examiner to Nakashima. Particularly the Applicant has previously shown from Nakashima that a change of recording mode does not have to be accompanied by a change in rotation mode (speed of rotation). For example, in Nakashima, a recording mode is changed from CAV to CLV, but the rotation mode remains CAV. In other words, a change in one mode does not necessitate a change in the other. In this sense, Nakashima teaches away from rotating in CLV mode.

However, in the Applicant's disclosure, the graph in Fig. 1 shows that when a mode is changed, a rotational mode is also changed. In the Applicant's claimed invention, a recording mode is changed, and then a rotation mode is changed as well.

In the Applicant's invention, rotation in CAV mode begins as set forth on page 5, line 16 of the Applicant's disclosure. Naturally, this CAV mode includes both rotating a disc in CAV mode and also includes recording data in CAV mode, the both are which are encompassed by the Applicant's definition of CAV mode as set forth above. Subsequently, the recording mode is switched from CAV mode to CLV mode (see line 25). This change is also accompanied by a change in rotation mode i.e., the speed of rotation is gradually reduced as the current recording point advances outward (CLV rotation mode). This is contrasted with Nakashima, wherein a recording mode is changed to CLV, but the rotation mode (CAV mode) is maintained.

Based on the discussion set forth above, the Applicant submits that the claims, as amended, are fully supported by the Applicant's disclosure. Reconsideration and withdrawal of this rejection is respectfully requested.

Rejections Under 35 U.S.C. § 103

Claims 1-3 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,214,627 to Nakashima et al. (Nakashima) considered with U.S. Patent No. 6,031,801 to Ishikawa, and all further considered with U.S. Patent No. 5,283,775 to Finkelstein et al. (Finkelstein). Claims 1-3 also stand rejected under 35 U.S.C. 103(a) over Yokogawa further considered with either Eguchi et al. (Eguchi) or Fuji, or alternatively, Yokogawa further considered with either Eguchi or Fuji and all further considered with Okada et al. (Okada). Claim 6 stands rejected under 35 U.S.C. 103(a) over the art as applied to claim 1 above and further in view of Okada. Claims 4, 5, 6 and 7 stand rejected under 35 U.S.C. § 103(a) over the references as relied upon in either paragraph 4 or 6 and all further considered with Okada. Claim 8 stands rejected under 35 U.S.C. 103(a) as being unpatentable over either Maeda or Nakashima each further considered with Syracuse. Claim 8 also stands rejected over Yokogawa considered with Okada or alternatively with Eguchi. Claims 9 and 10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 8 i.e., Yokogawa considered with Okada above, and further in view of Okada.

Complete discussions of the Examiner's rejections are set forth in the Office action and are not being repeated here.

All of the above rejections rest on the Examiner's position that (1) there is no support in the Applicant's disclosure for changing a rotating mode from CAV to CLV and (2) there is no required ability of recording in CLV mode, because the claims only recite recording in a CAV mode. The Applicant's submit that based on the discussion provided above with respect to the rejection under 35 U.S.C. 112, first paragraph, there is support in the Applicant's disclosure for (1) changing a rotating mode and (2) recording in CLV mode.

Further, independent claim 1 has been amended to recite a combination of elements in a method of changing a rotating mode for recording between CAV (Constant Angular Velocity) and CLV (Constant Linear Velocity), including changing the rotating mode for recording from CAV to CLV according to the result of the comparing step and recording input data to the recording medium in CLV mode. Independent claims 4 and 8 have been similarly amended.

Clearly, neither Nakashima, nor Ishikawa, nor Finkelstein, either singly, or in combination, discloses or suggests the above-recited features of independent claim 1 (as amended).

With regard to Yokogawa, Eguchi, Fuji, Okada, Maeda and Syracuse, these are all directed to formatting of the disc, data recording format and disc or data configuration. All of these are performed independently of driver operations such as changing a rotating mode between CAV and CLV. They exist irrespective of a disc

rotation mode. In fact, these references are farther removed from the Applicant's claimed invention than Nakashima, which at least recites a change with respect to a recording mode. However, even Nakashima teaches away from changing a rotating mode to CLV because a CAV mode is maintained even though a recording mode is switched over to CLV.

Therefore, none of the above cited references, either singly, or in combination, discloses or suggests a combination of elements in a method of changing a rotating mode for recording between CAV (Constant Angular Velocity) and CLV (Constant Linear Velocity), including changing the rotating mode for recording from CAV to CLV according to the result of the comparing step and recording input data to the recording medium in CLV mode, as recited in independent claim 1, as amended, and similarly stated in independent claims 4 and 8 (as amended).

Claims 2, 3, 5, 6, 7 and 9 depend, either directly or indirectly, on claims 1, 4 and 8. Since none of the above-recited references discloses or suggests the features of independent claims 1, 4 and 8, the references cited hereinabove by the Examiner, either singly or in combination, cannot render claims 1-10 obvious to one of ordinary skill in the art. Reconsideration and withdrawal of these art grounds of rejection are respectfully requested.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Percy L. Square, Registration No. 51,084, at (703) 205-8034, in the Washington, D.C. area.

Prompt and favorable consideration of this Amendment is respectfully requested.

Pursuant to the provisions of 37 C.F.R. §§ 1.17 and 1.136(a), the Applicant respectfully petitions for a one (1) month extension of time for filing a response in connection with the present application and the required fee of \$110.00 is attached hereto.

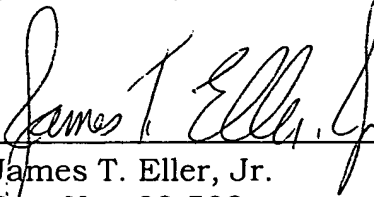
If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No.

02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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